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Lab's original mission inspires entire genre of comic books, characters

By Kathryn Hoogendoorn, archivist, [National Security Research Center](#)

Editor's note: This is the third story in a three-part series on the Lab's post-World War II influence on pop culture, which is a reflection of the public's understanding of scientific advancements following the dawn of the Atomic Age in 1945. Each story spotlights the Lab's legacy materials, including film and photos, from the weapons testing era that are now part of the National Security Research Center's collections.

Spiderman, Captain Atom, X-Men, Hulk, Firestorm, Fantastic Four. What do they all have in common? Atomic energy origins.

The Lab's [advent of the atomic bomb](#) that helped end World War II in 1945 fueled the imagination of comic book writers. The public's focus on emerging nuclear science made the idea of people-turned-super through radiation wildly popular in many aspects of pop culture.

Think about your favorite superheroes. Most of them have origins related to nuclear energy: Spiderman was bitten by a radioactive spider, the X-men were a result of radiation exposure, the Hulk was created by a fictitious nuclear weapon, the Fantastic Four were created by flying through a radioactive space cloud, among other examples.

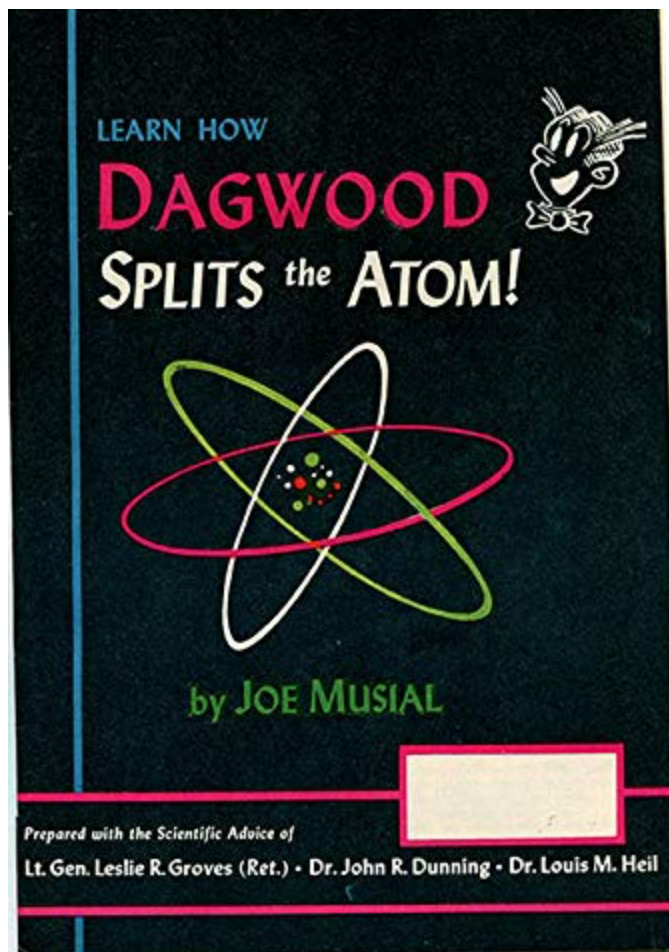
From fashion to [movies](#) to music, various aspects of pop culture were inspired by the dawn of the Atomic Age. However, pop culture also was used as an educational tool. Following WWII, both the government and private sector worked to educate the public about atomic energy and its valuable contributions.

Learn How Dagwood Splits the Atom! (1949) is an example of how pop culture was used to explain scientific advancements. General Leslie Groves, who led the U.S. effort to create the atomic bombs known as the Manhattan Project, was behind *Dagwood* and even wrote the foreword.



<https://images.lanl.gov/content/lanl-assetshare/en/home/details/image.html/content/dam/lanl/general/history/manhattan-era-photos/people/badge-photos/Groves%2c%20Leslie%20R.tif>

caption: General Leslie R. Groves directed the Manhattan Project, the U. S. effort to create the atomic bomb. After the Manhattan Project ended in 1947, Groves publicly advocated for atomic energy.



<https://drive.google.com/file/d/1YgrUa5Lz01IHlyuq2KgyxsmBuhbdEw3y/view?usp=sharing>

caption: Comic book plots and characters were inspired by the scientific achievements stemming from the Atomic Age, but their popularity was also leveraged as an educational tool. *Dagwood Splits the Atom!* explains atomic structure and chain reactions, and includes an introduction from General Leslie Groves, who oversaw the creation of the atomic bombs at the Los Alamos Lab.

There seem to be four broad eras of nuclear science in comic books: American pride, duck and cover, American pride reborn and deterrence. Each relates to the public opinion and the ongoing scientific developments.

American pride

In 1945, the release of the atomic bombs above Japan helped end the world's deadliest war almost overnight. The highly secret creation of the weapons became one of the biggest headlines of the day and Americans were beginning to understand what had been going on in their own backyards.

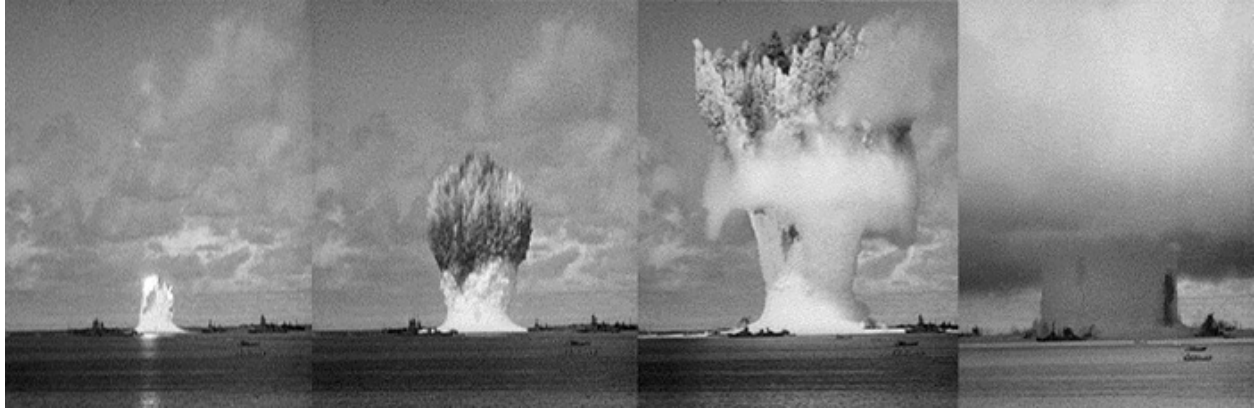
The same year in the world of comic books, the fictitious Dr. Adam Mann accidentally drank a glass of water laced with uranium-235 and then stumbled into a high-voltage machine. His resulting powers included super strength, flight and energy blasts from his right hand where most of the nuclear power was concentrated. He wore a lead glove when he needed to conceal his powers, but otherwise fought communism and crime as Atomic Man. For six issues, Atomic Man encouraged the safe use of science and berated villains' use of scientific knowledge for evil.



https://drive.google.com/file/d/1_dkdjosA31BcQV9bR1058Uycwo0Vf6Du/view?usp=sharing

caption: Dr. Adam Mann, whose alter ego is Atomic Man, wore a lead glove to conceal his nuclear energy-induced superpowers. The comic book character, who emerged as the Cold War was in its early stages, fought communism while advocating for science.

A number of other heroes, including Atomic Thunderbolt, Atoman and Atomic Bunny, used their atomic powers to fight bad guys and reinforce atomic science as a positive innovation. Even Superman had a run in with an atomic explosion. In an October 1949 *Action 101* issue, Superman is forced to take a pill that makes him insane, which is reversed when he accidentally flies an atomic mushroom cloud.



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caption: U.S. weapons testing at Bikini Atoll in the Pacific took place from 1946-1958. The first series of tests was codenamed Operation Crossroads and included “Helen of Bikini,” pictured here erupting from the lagoon and rising in the air. The weapons testing period (1945-1992) influenced pop culture and was a way for the public to understand scientific advancements of the time. Materials from the weapons testing period are part of the collections in the National Security Research Center, the Lab’s classified library.

Duck and cover and American pride reborn

As the Cold War (1947 - 1989) endured, atomic energy in culture had taken on a new light. With the Soviets first atomic bomb test in 1949, nuclear deterrence was emerging as a security strategy and comic books continued to use characters and plots as a means to educate the public about atomic science. The change in tone was marked, though. Atomic superheroes became grittier and more problem-plagued. This was, in part, due to a shift in atomic culture, which had been viewed in a positive manner, but now was being influenced by Cold War fears.

In 1961, the Fantastic Four were just a regular team of scientists exploring space until they were exposed to cosmic radiation that gave them super powers. 1962 saw the advent of Spiderman, The Incredible Hulk and Doctor Solar: Man of Atom. The Hulk and Spiderman live on today in popular culture as two of the greatest comic book heroes, and both have maintained their nuclear origins through the years: Spiderman was bitten by a radioactive spider and given his spider-like powers. The Hulk’s creation was the result of radiation exposure from a fictitious weapons test site in New Mexico. Meanwhile, Solar survived a nuclear plant mishap that turned him into The Man of Atom.



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https://drive.google.com/file/d/1dTQY7UQLVHADLt3l7rZoT5621zli_1tb/view?usp=sharing

caption: There are similarities between first Lab Director J. Robert Oppenheimer and the fictional Dr. Reed Richards and his alter ego superhero Mr. Fantastic. The comic book character is a brilliant scientist with connections to Caltech, Harvard and multiple European universities, and is defined by his charisma, reclusive scientific instinct, grey sideburns and constant smoking pipe. It has been suggested that Marvel comics creator Stan Lee's initial vision of Dr. Richards was based on Oppenheimer.

Nuclear deterrence

Atomic science in pop culture continued to evolve as science and perceptions changed. The next large shift in the atomic comics genre occurred as nuclear deterrence principles began to emerge as a more prevalent security strategy. Again, comic book culture became enthralled with atomic energy and reignited the theme in story lines and origins.

The 1980s included a mix of fun stories like *Teenage Mutant Ninja Turtles* (1984), who became today's loveable testudines through radiation exposure. The era also included cautionary tales like in *Watchmen* (1986), where superheroes live in a pre-WWII alternate history.

As the Cold War came to a close, comic book writers incorporated related themes. Most famously, the character Dr. Manhattan (a member of the *Watchmen*), came into being while working on a post-WWII project exploring the peace-time uses of atomic energy. The fictitious work was a direct reflection of efforts in nuclear science worldwide. Atomic themes are seen again at the end of the *Watchmen* graphic novel when one of the team members averts a bloody end to the Cold War.

Conclusion

As the public interprets advancements in atomic science, pop culture both enables and reflects this. The wonderful world of science will always draw readers and viewers with undivided attention as one adventure after another unfolds in comic books.

Want more on the Lab's influence on atomic pop culture? Take a look at two more stories on [movies](#) and [music](#). They also spotlight materials in the collections of the [National Security Research Center](#), the Lab's classified library, which curates unclassified artifacts from LANL's past.



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caption: Published by General Electric in 1948, comic characters Ed Powers and Johnny Powers explain atomic energy in *Adventures Inside The Atom*. Comics were a way for corporations, the government and others to explain emerging scientific achievements following the Los Alamos-creation of the atomic bomb in 1945.



Caption: The public's fascination with atomic science led to many related themes in comic books. *Atomic Mouse* and *Atomic Rabbit* are early examples and *Radiation and Man* has a similar feel to the *Watchmen*'s Dr. Manhattan character, created in the 1980s.

Box:

More fantastic tales about your favorite superheroes:

- X-men
- Firestorm
- Superman and the atomic bomb (Action 101, 1946)
- Before the Watchmen
- Radioactive Man
- Dagwood Learns to Split the Atom
- Godzilla
- Atomic Man
- The Fantastic Four
- Red Star
- The Hulk
- Planet of the Apes
- Fallout